

# some words about words



This talk was written about North American English, but English is not a single language with a single standard meaning for every word or phrase. It's possible that the specific things I say in this talk will not apply to the dialect of English that you speak in your workplace. Unfortunately, I don't have the experience I would need to be able to localize this talk to the major dialects of English people speak in this part of the world.

So I will begin by talking about the theories of language I drew on in writing this talk. Understanding these theories can help you understand what to look for in your workplace and your dialect(s) of English.

# what to listen for



Direct insults have no place in a retrospective (or, I would argue, any workplace), but they're also reasonably easy to identify, and they're generally an issue for a company's management, so insults and other unambiguous mean remarks are mostly not what I am going to talk about today. I am going to talk about subtle words and phrases that may make you feel bad but leave you feeling confused about why. These are **regionally and culturally variant**- subtle insults or compliments depend on you knowing what the speaker considers good and bad and what words have good or bad **connotations**, and those things are strongly influenced by culture and region (even within countries).

So I will start by giving you some tools to use when thinking about the meanings of words in English. You can use these tools to think about whether the specific points about language I make in this talk apply to your workplace, and if not, what the corresponding language issues are for you.

# connotations and denotations



The **denotation** of a word is its literal meaning, the meaning a dictionary tries to define. As much as possible, it is about facts without emotional or cultural significance. Sometimes this can be confusing across different variants of English, but mostly when the literal word is different. For instance, in American English, a garment that is knitted and might be worn over a shirt is a **sweater**, but in UK English it is a **jumper**. Changes in denotation are usually fairly easy to clarify.

Some of the subtlest and most confusing differences between global Englishes are in the **connotations** of words. Connotations are about **cultural or emotional associations** and these can be very regional. In North American English, “smart” is usually understood to have positive associations, “clever” has ambiguous associations (and this is sometimes used to create subtle insults), and “sly” often has negative connotations (involving tricking people). The fact that “sly” is usually negative can be used to create complex compliments in specific contexts (usually ones where the people involved have a close relationship), where the fact that the word is usually negative makes the compliment **more** meaningful.

# implications and presuppositions



In modern American slang, people sometimes say “A for effort!” If you are not from the United States or not familiar with modern usage (especially youth culture and internet culture), this may sound like a compliment, like the speaker is saying that someone put in good effort. That’s not correct AT ALL. What the speaker is saying is that is that the person who put in all that effort didn’t get any *results*, and in this cultural context that means they *wasted their effort*, or that they were trying to get results in an entirely wrong direction. This is an example of an implication- all of the meaning in this phrase is in the contrast between what is being said and what is **valued**.

Presuppositions are about the conditions that are *assumed to exist* in order for a question or statement to make sense. If you were to hear my coworker ask me “Is your sister feeling better?” you could assume that I have at least one sister and that she has been sick or injured. Presuppositions become a problem when they are wrong, or when a speaker uses them to create a malicious untruth. If you were to hear a coworker ask me “did you finish writing those tests?”, you might assume that there were some tests I was assigned to write, and

possibly that the coworker who is asking me this question assigned them to me. That would further imply that my coworker had the **authority** to tell me to write tests. If these things are untrue, my coworker has just created an untruth in your mind and maybe also in mine, if I don't argue with them.



*Image credit: <https://www.nps.gov/mora/planyourvisit/sunrise.htm>*

Those are high-level overviews of the linguistic principles I'm going to be drawing on today.

That was a lot in a short amount of time

I'm going to pause here for a moment to give everyone's brains a break before launching into the rest of the talk

# Retrospectives for Humans

(a crash course)

Courtney Eckhardt  
@hashoctothorpe (she/her)



I don't think this talk needs any content warnings- I do talk about an engineering disaster but no one was injured.

# let's talk disasters

who doesn't like a good  
disaster\*?



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\* No one died or was injured in this disaster



Seattle has the two longest floating bridges in the world, and in 1990 one of them sank over Thanksgiving day weekend, in a storm, while it was being repurposed.

The public reporting to this day is extremely simplistic, but the official investigation found that there were five factors involved and all of them were required for the bridge to fail.

Hydrodemolition

water storage and trucking

one pontoon sank first and dragged 7 more down after it

things are more likely  
to break when you are  
messing with them



**Stop at 3:18**

# stuff they checked

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- Integrity of surviving pontoons
- Integrity of sunken pontoons
- Past concrete crack inspections (40+ years of annual inspection records)
- Metal reinforcement position and integrity in pontoons
- Bridge load from construction equipment
- Wind and wave loads from the storm
- Excess water loads (in the pontoons)
- Compressive and tensile strengths of the concrete in the pontoons (both surviving and sunken)
- Structural analysis for static loads
- Structural analysis for wind and wave loads
- Comparisons of loads to cracking/slipping stresses of concrete

this was a giant disaster and it required a giant investigation

# complex failures

“The loads that created significant leakage were the combined effects of all accumulations of water, including rain after the wind storm, longitudinal flow on the surface of the bridge, and pumping through Nov. 24, 1990. These loads caused static moments [...] that exceeded the threshold for leakage. [E]xisting cracks were open[ed] sufficiently to allow water to leak into the pontoon. Progressive and accelerating sinking began at this time.”

Dusenberry, D., Zarghamee, M., Liepins, A., Luft, R., and Kan, F. (1995). "Failure of Lacey V. Murrow Floating Bridge, Seattle, Washington." J. Perform. Constr. Facil., 9(1), 4–23.



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## The official analysis

“The loads that created significant leakage were the combined effects of all accumulations of water, including rain after the wind storm, longitudinal flow on the surface of the bridge, and pumping through Nov. 24, 1990. These loads caused static moments [...] that exceeded the threshold for leakage. [E]xisting cracks were open[ed] sufficiently to allow water to leak into the pontoon. Progressive and accelerating sinking began at this time.”

no one does things  
they think will blow  
up the world



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It's tempting to say the same things those "experts" did- that if you fill a bridge full of water it sinks, and that the idea was bad in the first place. But people don't do things they think will blow up the world, they do the best they can with what they know and the resources they have

Asking about what a person knew and what the conditions were will give good insight for effective change.

# let's do better



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If we are thoughtful and deliberate in how we talk to each other we can get better results  
Here's a crash course in talking to other humans during a retrospective (or at any other time)

# Facilitation: a crash course



Image credit: [https://commons.wikimedia.org/wiki/File:Tulista\\_-\\_Haworthia\\_minima\\_in\\_cultivation\\_2.jpg](https://commons.wikimedia.org/wiki/File:Tulista_-_Haworthia_minima_in_cultivation_2.jpg)

Other ways to think of it: servant leadership, psychological safety

Your main jobs are to keep the conversation blame-free, not make bad jokes,  
and to run a pretty good meeting

language



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Let's talk about how to talk

# Miller's Law

"In order to understand what another person is saying, you must assume it is true and try to imagine what it could be true of"



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First, because it's foundational: Miller's Law

"In order to understand what another person is saying, you must assume it is true and try to imagine what it could be true of"

George Armitage Miller (also the guy who theorized that seven is the magic number of things you can put in short-term memory)

I learned about this from Suzette Haden Elgin, in *The Gentle Art of Verbal Self-Defense*

This is THE KEY to understanding systems, and people who have different perspectives and experiences

This is how you can begin to understand why things are the way they are in any context, but especially one that's not yours

This is a critical tool when conducting a retrospective, because no two people have the same experience of an incident



Next let's talk about blame

English is a pretty blamey language  
"You knocked over that vase"  
"Why did you knock over the vase?"

# "you"

yeah, you! I'm talking to you! don't  
you just walk away!!



@hashoctothorpe

“You” “yeah, you! I’m talking to you! Don’t just walk away!!”

that feels awful, doesn't it?

Starting a sentence with "you" draws a line between yourself and the person you're addressing

So does using it too often

It creates an oppositional conversation- there is the person saying "you" and the person being "you" at

# "why"

why did you do that? why did you  
do it LIKE that?



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“why did you do that? Why did you do it LIKE that?”

that also feels terrible, doesn't it?

Asking a question that starts with "why" is a request for a justification- it immediately puts the person you're addressing on the defensive  
"Why" questions get you answers in agentive language ("because I knocked it over"), which has blame in the very grammar- because a person did a thing  
Agentive language is strongly remembered by English speakers, so then you've ensured that the blame sticks in everyone's minds

# other things not to say to people

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- always
- never
- every time
- should
- just
- only

Other things not to say to people:

Always, never, every time, should, just, only

There's more but these are the least wanted in a retrospective

If you have a sibling, anything your sibling shouted at you when they were mad that made you see red goes on this list (or possibly your child)

It (might be) different if you're talking about an API or an RFC when using these words, but remember that when you describe the behavior of a system you are describing the decisions that some people made when they built it and it's more upsetting if those people didn't realize quite all of the decisions they made at the time (because we never can know that)

“why didn’t you just fix it the last time this happened?”

Example: “why didn’t you just fix this the last time it happened?”

This is not compassionate and it’s not effective at helping us understand the real problem

Let’s take this apart

Assumes:

- it's happened before
  - maybe more than once
- it could be fixed the last time it happened
  - easily (this is the "just")
- "you" was the right one to fix it
- there was no good reason not to fix it

## better things to say

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- how
- what
- what if
- could we
- what do you think about
- what would you have wanted to know

Better things to say:

How, what, what if, could we, what do you think about, what would you have wanted to know

All of these are designed to get more complex answers when used in a question

When asking a question, think about what you can say that will get the **longest** answer

This might be hard- in business, we sometimes get in the habit of asking questions that will get us the most concise answer possible, so you might need to practice asking questions that elicit complex answers

This is a creative process, both for you and for the people participating- one of the things you're trying to do is **imagine a better world**



When you ask these better questions, what you're looking for is called a remediation item- an idea for a change we can make (to code, documentation, or processes) that will give a different outcome in the future

We call this "contributing factor discovery" because complex systems have complex failures, and talking about a single "root cause" keeps us focused on finding ONE thing to change when we want to find many.

# human error is not a root cause

*...human error as a root cause isn't where you should **end**, it's where you should **start** your investigation.*

- John Allspaw, referencing Sidney Dekker, David Woods, and others

we often hear that something went wrong because of “human error”

- but “human error” is actually where you should **start** your investigation
- people make the best decisions they can with the information they have
- so:
  - HOW did the human make the error?
  - What allowed the error to happen?
  - How did the error take the system down?
  - How long did the human take to notice the error?

“try harder” is not a remediation

*The beatings will continue until  
reliability improves.*

– some combination of my colleagues



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Fallacy: “Well, now that we know about this kind of mistake, we can just not do it again.”

Depending on humans to avoid errors is unreasonable. People can't be perfectly vigilant and they can't just be better rested- the human you had today is the human you have to plan for in the future.

enjoy your meeting



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Let's talk about how to have a great meeting

# stay on time and on topic

If you're facilitating, have an agenda, stick to it, and stay on time

- helps keep you from missing things by running out of time
- lets participants know what you'll cover and when
- helps participants stay with the group
  - people who are lost feel self-conscious and are less comfortable engaging
- digressions can be boring for the group or inhibit participation, especially if one person is filibustering or has a hobby horse. staying on track helps make sure everyone stays engaged

If you're participating, your job is to help the group stay on track. Before you share, ask yourself if what you have to say is on topic and needs the entire group's attention. If one of those isn't true, try to bring it up later in a more appropriate context. Keep your eye on the agenda and stay engaged, even if you have nothing to contribute right now. Sometimes the best findings in a retro are about the interactions between participants, not just one person saying a thing. Help make sure note-taking is shared fairly by volunteering

# practice interrupting



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as a facilitator, you'll need to learn how to interrupt individuals for the good of the group and the meeting  
it's necessary when people start to rant, complain, blame, or get off topic  
this can be super uncomfortable!  
remind yourself that **you can't achieve the goals of the retro if this goes unchecked**

the best way to practice is to think about a time you experienced when someone needed to be interrupted and they weren't. Remember how unpleasant and frustrating the result was! Then imagine yourself saying "thanks, teammate, but we're really far afield and we need to come back to the point"  
or "everyone working this incident did the best they could, and we're here to figure out what we need to know to help things go better next time"  
or even "wait a minute please" to give yourself time to think  
Do this gently but firmly- the person you are interrupting will probably even feel good about it in the end

# who's talking? who isn't?

as the facilitator, one of your jobs is to make sure that everyone gets a chance to speak, even if they have nothing to say

don't assume that just because a person is silent, it means they have nothing to say

they may be shy or having a hard time interjecting

keep an eye on the participants to see who might want to speak but be afraid to interrupt

things to watch for:

- wiggling
- leaning forward
- licking lips
- biting lips
- waving their hand
- lips pursed as if ready to speak
- frowning/nodding/other engaged facial expressions

Take time to stop the discussion and ask people who have been silent whether they have anything to say, by name

do this partway through and at the end if you can

# let's talk about humor

or maybe we could not



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It is really really easy to mess up when making jokes in a retro

You may have heard the saying "comedy is tragedy plus time". In a retro there has **not been enough time**.

Furthermore, someone (maybe everyone) in that retro feels like they screwed up and cost the company money, their teammates' time (and maybe sleep), and made everyone present have yet another meeting

And probably their manager is there too

anything that makes anyone in the room  
feel even a little bit uncomfortable, even  
if they don't really notice or aren't willing  
to tell you



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getting it wrong means "anything that makes anyone in the room feel even a little bit uncomfortable, even if they don't really notice it or won't admit it to you"

# some bad jokes

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- anything your parents say when they're mad or they think you haven't come home recently enough
- anything you say back to them
- anything a manager or other employee ever said to you that made you feel bad
- anything you ever said to a coworker that made them laugh uncomfortably or wince
- jokes about getting fired or firing people
- politics
- religion
- current events

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# things I shouldn't have to mention

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- race
- gender
- sexuality
- fat jokes
- jokes about disabilities
- "crazy"
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# you can probably make jokes about

- murphy's law
- entropy
- the general terribleness of computers
- the terribleness of getting paged
- being utterly serious about silly things ("Las Vegas, colloquially known as "fabulous")
- MAYBE you can joke WITH a person about something they are proud of about themselves



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If you knew that I liked making jokes about myself as "the girl with her hair on fire", you could probably make that joke and it would be okay

If you DIDN'T know that I made that joke myself, you should not do it, because in that case no one can be sure that you mean it in a flattering way

but Courtney, if I can't  
make jokes, how can I  
lighten the mood?



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you can be kind  
you can be thoughtful  
you can be caring  
you can call out successes  
you can thank someone for their honesty

you can be warm and welcoming



what about when things go wrong?

what do you do when other people blame or make bad jokes? what about when you make a mistake?

# if you mess up



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if you make a bad joke or accidentally say something blamey or you can tell you've made someone uncomfortable

apologize, correct yourself and move on

it's important to be sincere but matter-of-fact

wallowing is self-blame and it's uncomfortable, time-consuming, and part of what you're trying to avoid



Sometimes people will blame themselves, and you might need to intervene. You need just a short request to them that they stop, and then move on. If the person is embarrassed or wants to explain, you can give them a moment, thank them sincerely, and move on. Try one of these:

“This is a blameless retrospective, and that means not blaming anyone, including yourself.”

“We’re here to make sure no one gets blamed, including you.”

“Please don’t blame yourself, that’s not what we’re here for.”

# you don't have to be witty



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If someone else messes up, you don't have to be witty  
don't try to be clever, don't try to make a joke yourself  
you don't need to one-up anyone or "win"  
your goal is to remind people of the ground rules and why we're here

If they ask a blaming question, gently remind them that we're trying to avoid blame and help them rephrase the question

"please don't make jokes  
like that in a retrospective"



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"please don't make jokes like that in a retrospective"

This is all you have to say if someone makes a bad joke. during the retro is NOT the time to try to have a teachable moment or stage an intervention; you don't need to convince anyone of anything, you just need them to stop as quickly as possible so the group can move on

If their joke is something like "I fat-fingered it", where they are blaming themselves, you can say gently say "retrospectives are blameless, and that includes not blaming ourselves" or you can just ask they not make a joke like that in a retro.

Once you've gotten them to stop and the group has moved on, do NOT bring it up outside the retro! as far as you are concerned, the issue is addressed and done. If they come to you and ask why it was inappropriate, you can explain if you feel like you want to, or just reiterate that it's inappropriate for a retro.

# outcomes



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Okay so what's the point

# Conway's Law

organizations which design systems ... are  
constrained to produce designs which are copies of  
the communication structures of these organizations  
--Melvin Conway, in **1968**



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your retrospectives are PART of the communication structures of the organization which produces the system you're running

it's turtles all the way down, folks

let's go make bigger,  
more interesting  
mistakes

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HEROKU

Thanks for listening <3

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